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# Missouri Market Development Program

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## Annual Report for Fiscal Year 2017

(July 1, 2016 – June 30, 2017)



# EIERA

Environmental Improvement and Energy Resources Authority

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# Missouri Market Development Program

## Building Missouri Business

### Introduction

#### Administration

In 1990, the Missouri General Assembly directed the Environmental Improvement and Energy Resources Authority to establish the Missouri Market Development Program to promote the development and maintenance of markets for recovered materials. EI ERA is a quasi-governmental agency with a Governor appointed bi-partisan board that serves as the financing arm of the Department of Natural Resources. EI ERA was selected to house the Missouri Market Development Program to bridge economic development and environmental interests.

#### Purpose

The Missouri Market Development Program promotes the development and maintenance of markets for recovered materials and recycled content products throughout Missouri by providing financial incentives, technical assistance and informational services to businesses, governments and other organizations.

Recycling market development helps to ensure that recycling will expand its role in a sustainable Missouri economy, create jobs, conserve resources, contribute to a quality environment and reduce reliance on Missouri's landfills for disposal of solid waste.

#### Funding

To implement this statewide effort, the Missouri Market Development Program was allocated \$800,000 from Missouri's Solid Waste Management Fund in fiscal year 2017.

#### Recycling market development is working!

In fiscal year 2017, the Missouri Market Development Program's new investment in four Missouri recycling businesses and continued management of 10 active projects benefited our economy and the environment:

- Leveraged more than \$11.4 million in total investment
- Created 76 new Missouri jobs
- Diverted more than 45,000 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to almost \$2.7 million each year.



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# Missouri Market Development Program

Developing markets through cooperation

## Partners

The cooperation and assistance of several agencies and organizations have been instrumental in the success of the Missouri Market Development Program.

### Department of Economic Development

During the fiscal year, the Missouri Market Development Program continued its working relationship with the Department of Economic Development in support of program objectives. The Missouri Market Development Program and DED coordinate direct assistance to businesses to improve sales and purchases of Missouri products made from recyclable materials.

### Department of Natural Resources

The Missouri Market Development Program works closely with the Department of Natural Resources in its administration of the Solid Waste Management Fund and the Solid Waste Management Program's waste reduction and recycling efforts. The Missouri Market Development Program coordinates priorities and evaluation of activities with the Solid Waste Management Program.

### Office of Administration

The Missouri Market Development Program, in cooperation with the Office of Administration, promotes recycling in state agencies. The Missouri Market Development Program works with the Office of Administration on the Missouri Interagency Recycling Council and in developing the annual State of Missouri Recycling and Waste Reduction Report.

### Solid Waste Advisory Board

The Missouri Market Development Program provides updates on its activities to the Solid Waste Advisory Board. The Solid Waste Advisory Board is made up of the chairperson of each of the 20 Solid Waste Management Districts, three citizen representatives and two representatives of the solid waste management industry. The Solid Waste Advisory Board chair also serves on the Missouri Market Development Program Steering Committee.

### Missouri Market Development Program Steering Committee

Staff from the EIERA, DED and DNR's Solid Waste Management Program comprise the interdepartmental Market Development Program Steering Committee. The Solid Waste Advisory Board chair is a permanent steering committee member. The steering committee evaluates financial assistance applications and technical assistance proposals submitted to the Missouri Market Development Program and makes funding recommendations to the EIERA board.



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# Missouri Market Development Program

Developing markets through cooperation

## Partners (continued)

### Mid-America Council of Recycling Officials

The Missouri Market Development Program represents Missouri on the 14-state Mid-America Council of Recycling Officials. As a member of the council, the Missouri Market Development Program encourages multi-state recycling, market development, reuse and source reduction efforts.

### Missouri Recycling Association

Missouri Market Development Program staff are actively involved in the activities of the Missouri Recycling Association, Missouri's only collective voice for recycling, waste reduction and sustainability issues.

### Missouri Waste Control Coalition

The Missouri Market Development Program supports the efforts of the Missouri Waste Control Coalition.



# Missouri Market Development Program

## Business Assistance

### FY 2017 Update

#### Market Development Program Supports Missouri Businesses

The Missouri Market Development Program supports both larger- and smaller-scale projects. Thanks to the program, Granuband Macon, Inc. in Macon created 10 new jobs in fiscal year 2017. The program also helped three other Missouri companies create new jobs in Mansfield, Wright City, and St. James.

#### Fiscal Year 2017 Financial Assistance

The Missouri Market Development Program's financial assistance is targeted toward developing and expanding manufacturing capacity in Missouri by assisting businesses with the purchase of equipment needed to enable manufacturing facilities to use recovered materials. Financial assistance applicants to the Missouri Market Development Program may seek eligibility to request up to \$250,000 toward the purchase of specific equipment needed to manufacture a product from recovered materials or to process materials so that they can be used as manufacturing feedstock.

Applications are assigned points in the categories of job creation, annual diversion and the cash match provided by the applicant. Increasing amounts of assistance are available as points scored by an application increase. If the application addresses a Missouri Market Development Program target, additional points are added to the total. Targets are construction and demolition waste, food waste and organics, plastics or location in a minimally funded Missouri Solid Waste Management District. (A list of these districts is available at <http://eiera.mo.gov/files/2014/12/How-Missouri-Market-Development-Program-applications-are-scored.pdf>.)

Any award requires a cash match of at least 25 percent of the cost of the equipment, and a 50 percent cash match is required to receive the maximum award.

#### Additional Activities

In addition to the financial assistance offered to Missouri business, the Missouri Market Development Program assists businesses with locating and procuring recyclable feedstocks and end markets for their recycled-content products..



# Missouri Market Development Program

## Business Assistance

### FY 2017 Projects

#### Granuband Macon, LLC - Macon

Granuband Macon, LLC was awarded \$250,000 to purchase equipment costing \$500,000 that will enable the company to manufacture playground tiles and other products at its tire recycling facility in Macon. The company has been processing scrap tires for use as mulch and infill for nearly ten years and would be the only Missouri company making a product from tires beyond the crumb rubber stage.

The tile manufacturing line would be purchased from an Iowa company with an agreement that the Iowa company will continue to market the tiles. The owner of the Granuband plant operates similar plants in the Netherlands and believes he can also produce additional products with the acquisition of this line, including a roofing product which has already generated interest in United States markets.

Because Granuband already shreds tires, the tile manufacturing line is a natural fit. Scrap tires continue to be problematic in the waste stream since updated air regulations have made it cost prohibitive for utilities to convert plants to continue to burn tire derived fuel. Currently, Granuband receives tires from multiple locations in Missouri.

Granuband Macon, LLC anticipates **diverting an additional 800 tons** annually from the waste stream and **creating ten to twelve full time employee positions** with this project.

#### Enginuity, LLC - Mansfield

Enginuity, LLC was awarded \$250,000 to purchase equipment costing \$500,737 that will enable the company to produce off-road diesel fuel and carbon products from a variety of organic wastes. The process would involve a high-temperature chemical conversion paired with secondary filtration processes. This technology is patented and used in many of Missouri's charcoal plants.

Enginuity, LLC, is an engineering company that provides turnkey services for a variety of industries. Enginuity performs metal stamping, plastic injection molding, tool and die design and electrical design. Through a past MMDP project, the company produces products that are carried by Menards, Ace Hardware, and other national chains.

With this project, Enginuity intends to accept waste from multiple sources. Enginuity's process will break down these materials to a liquid called bio-crude that will then be refined to produce off-road diesel fuel, and solids that are raw carbon. Raw carbon has multiple applications and Enginuity has letters of intent to purchase the "biochar" from Wright County who will apply it to roads in winter weather and from several nurseries and landscapers that will use it as a soil amendment. The off-road diesel will be sold to area farmers and businesses that have operations where it can be used.

Enginuity, LLC anticipates **diverting 14,000 tons** annually and **creating up to nineteen full time and five part time jobs** with this project.



# Missouri Market Development Program

## Business Assistance

### FY 2017 Projects

#### **EPC, Inc. – Wright City**

EPC, Inc. was awarded \$250,000 to purchase equipment costing \$1,638,952 that will increase process capacity at a new electronics remanufacturing and recycling facility in Wright City. The company has outgrown its manual demanufacturing process currently based in Earth City and plans to install the state-of-the-art shredding and sorting machine at a new 200,000 square-foot facility.

EPC, Inc. is an Information Asset Disposal (TAD) company. They refurbish and resell equipment whenever possible, but many of the items that come through their facilities are truly end-of-life and have no remarket value. EPC manually demanufactures these items so the component materials such as printed circuit boards, copper, plastic, aluminum and steel can be recycled.

The current manual demanufacturing processes are becoming non-sustainable due to depressed commodity markets, increased labor costs, and increased volume of end-of-life equipment. EPC, Inc. has been forced to turn away potential customers and has not been able to participate in public recycling events for these reasons. Automating the e-waste handling process will enable the company to serve its clients in a more economically feasible manner and will also allow the company to grow.

EPC, Inc. anticipates **diverting an additional 2,000 tons** annually from the waste stream and **creating four full time employee positions** with this project.

#### **St. James Winery, Inc. – St. James**

St. James Winery, Inc. was awarded \$175,500 to purchase equipment costing \$351,000 that will enable the company to make a distilled spirit similar to grappa (an Italian after-dinner drink) from grape waste (pomace) left over from wine production. This new product line will be part of a campus-wide shift to using sustainable processes and materials in the production of its beverages.

St. James Winery intends to construct a distillery on site at their current wine and craft beer production facility and will use the pomace from wine production to develop a new distilled spirit. Pomace (grape skins, pulp, seeds and stems) is generated in very large quantities in wine production and, like most organic materials, disposal can be problematic, often heavily impacting local wastewater treatment systems.

The project is part of St. James Winery's plan to become the model for sustainability in the wine and craft beverage industry. The St. James Winery campus may ultimately be an end user for pomace produced around the state, or can serve as a model for use of raw materials to other wineries. Other investments in the campus will increase overall energy efficiency, generate energy, and reduce expense of water management. The new distillery is planned to be LEED Certified.

St. James Winery anticipates **diverting 1,000 tons** from the waste stream annually and **creating 12 new full time jobs** with this project.



# Missouri Market Development Program

## Business Assistance

### Summary of FY 2017 Projects

Company	City	Material	Estimated Tons Diverted Annually	Estimated New Jobs	Award	Investment	Savings
Granuband Macon, LLC	Macon	Tires	800	10	\$200,000	\$1,200,000	\$37,600
Enginuity, LLC	Mansfield	Organics	14,000	12	\$250,000	\$750,000	\$700,000
EPC, Inc.	Wright City	Electronics	2,000	4	\$200,000	\$1,858,952	\$100,000
St. James Winery, Inc.	St. James	Organics	1,000	12	\$175,500	\$2,500,000	\$49,000
<b>TOTALS</b>			<b>17,800</b>	<b>38</b>	<b>\$825,500</b>	<b>\$6,308,952</b>	<b>\$886,600</b>

#### Recycling market development is working!

The Missouri Market Development Program's fiscal year 2017 new investment in these five Missouri recycling businesses helped our economy and environment:

- Leverage more than \$6.3 million in total investment
- Create 38 Missouri jobs
- Divert more than 17,000 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to more than three-quarters of a million dollars.





# Missouri Market Development Program

## Business Assistance

### Summary of FY 2017 Active Projects (previously awarded – still open)

In addition to the four new projects awarded in fiscal year 2017, 10 previously awarded projects were actively managed by the program during the fiscal year.

Company	City	Material	Est.Tons Diverted Annually	Est.New Jobs	Award	Investment	Annual Savings
Midwest Organics, Inc.	Sikeston	Organics	6,000	10	\$250,000	\$2,200,000	\$10,970
Bryant Plastics	Gainesville	Plastics	1,200	2	\$61,875	\$82,500	\$80,400
Missouri Organic Recycling	Kansas City	Organics	4,800	3	\$250,000	\$820,923	\$432,000
BFC Composting	Perryville	Organics	3,620	2	\$69,750	\$93,000	\$181,000
Foam Products Corp	Maryland Heights	Foam	50	3	\$44,447	92,000	18,250
Lake Area Industries, Inc.	Camdenton	EPS	180	6	\$63,000	\$84,000	\$22,500
Liquid Soap Products Ltd	Kansas City	Soap	5,000	5	\$250,000	771,000	892,000
Branch Creek, LLC	Rich Hill	Wood	550	2	\$100,000	\$407,345	\$30,250
St. Louis Composting, Inc.	St. Louis	Organics	6,500	5	\$220,000	611,295	140,875
<b>TOTALS</b>			<b>27,900</b>	<b>38</b>	<b>\$1,309,072</b>	<b>\$5,162,063</b>	<b>\$1,808,245</b>

#### Recycling market development is working!

These 10 previously awarded, active projects benefited the Missouri economy and environment by achieving the following:

- Leveraging more than \$5.1 million in total investment
- Creating 38 Missouri jobs
- Diverting almost 28,000 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to more than \$1.8 million each year.



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# Missouri Market Development Program

## Informational Services

### Working Toward Solutions

During the fiscal year, staff advised businesses on market conditions, locating recovered material feedstocks, determining markets, developing products and creating business presentations. Staff also responded to requests for information on marketing, planning assistance and markets for recyclables from governments and not-for-profit organizations.

The Missouri Market Development Program assisted businesses, governments, organizations and individuals in locating specific recycled-content products.

Information sharing is an important aspect of the Missouri Market Development Program's efforts to help build Missouri's recycling infrastructure. The program provides resources and informational services to businesses, governments and other organizations to increase manufacturing, marketing or purchasing of recycled content products.

Missouri Market Development Program staff also promoted Missouri's recycling industry and the "buy recycled" message in speaking engagements and workshops and participated in state, regional and national recycling issue conferences and meetings.

Staff develop and maintain information for a Missouri Market Development Program web site ([www.eiera.mo.gov/mo-market-dev-program](http://www.eiera.mo.gov/mo-market-dev-program)) and continue to gather and refine information for future web publication. The web site enables businesses to download the Missouri Market Development Program Application for Financial Assistance and access other program publications and information.

During the fiscal year, Missouri Market Development Program staff supported and participated in state, region and nation-wide organizations and activities to gain and share knowledge and to develop professional relationships in the areas of recycling, economic development, solid waste and related environmental or business areas. Active involvement in these initiatives enables Missouri Market Development staff to approach problem solving from many perspectives and better facilitate growth of Missouri's recycling businesses.



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# Missouri Market Development Program

## Outlook

### Focusing on Opportunity

#### Economy

The economic benefits of recycling versus landfill disposal seem negligible at the front end, but as materials flow further downstream, the value of the commodity increases, as do the wages and skilled labor required to turn the commodity into an end product. Recycling is estimated to create nearly five times as many jobs as landfilling. The recycling industry is an elaborate and diverse network of public sector institutions and private industry. Recycling involves not only collection, but also processing and manufacturing. At each level, jobs are created, and income is generated. Recoverable material destined for a landfill is a leakage from the local economy.

#### Environment

The greatest environmental benefits of recycling are related not to landfills but to the conservation of energy and natural resources and to the prevention of air and water pollution when a recycled material, rather than a raw material, is used to make a new product. Using recovered materials in preference to virgin also helps stimulate Missouri's development of green technologies. The benefits of developing markets for recovered materials are found at every stage of the life cycle of a consumer product - from the mining of raw materials through its use and final disposal.

#### Challenges

Missouri has made great strides in recycling since 1990, but much of our recovered material continues to flow out of state, often to other countries where it is used in manufacturing products that are resold to the United States. According to the Department of Natural Resources, 1.9 million tons of recyclables are disposed of in Missouri landfills each year. End markets, particularly local end markets, for many materials simply do not exist.

#### Opportunities

The Missouri Department of Economic Development reports that Missouri exports of scrap exceed \$5 million annually. Recirculation of even a fraction of this within the state would have significant economic benefits for Missouri. Manufacturers that use recovered materials do so in lieu of feedstocks that are mined, harvested or extracted outside of the region. As a result, these businesses create jobs closer to home and have a smaller environmental footprint than companies that rely on raw material extraction. The Missouri Market Development Program acts to counter-balance foreign demand by developing local markets that will in turn create jobs and broaden the domestic tax base. Recycling market development feeds directly into building Missouri jobs, supports larger, private sector investments, promotes resource efficiency and spurs new technologies.

# EIERA

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